

Research Paper

Epidemiology of Children and Adolescents Psychiatric Disorders in Qazvin Central Areas 2016-2017 (A National Project)



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ABSTRACT

Background Identification of children and adolescents mental health problems need to investigate of psychiatric disorders.

Objective We aimed the prevalence of psychiatric disorders in central areas of Qazvin Province children and adolescent ages 6 to 18 years and their comorbidities.

Methods This is a national project that will be implemented in central areas of Qazvin Province. This project will be focused on 1025 children and adolescents ages 6 to 18 years from central area of Qazvin province by cluster sampling method with Kiddie Schedule for Affective Disorders and Schizophrenia, Present and Lifetime version questionnaire (K-SADS-PL). The interview was conducted by 8 clinical psychologists

Findings The prevalence of total psychiatric disorders in children and adolescents was 28.19% (95% CI=21.81-22.82) that was among boys 31.5% and among girls 25% and by comparing 95% of confidence interval of prevalence of psychiatric disorders in both genders. We saw a significant difference in total psychiatric disorder ($P \leq 0.02$) and results also showed that odds ratio (95% CI) for psychiatric disorders in the total population in terms of sex was 0.7 (for female). In addition, anxiety disorders had the most highlighted prevalence among all (13.2%) and; specific phobias disorders (4.7%) was the most common disorders. The results showed that the comorbidity of anxiety disorders and behavioral disorders is more than any others (22.2%). Free job mothers were valuable ($P \leq 0.006$).

Conclusion This study showed the child and adolescents are significantly different in term of sex in central areas of Qazvin Province. Anxiety disorders are most common psychiatric disorders.

Extended Abstract

1. Introduction

T

he diagnosis of mental health disorders in children and adolescents requires investigating their prevalence. Evidence suggests that approximately 15-32% of children and

adolescents suffer from mental health disorders [2, 3]. The increased population of children and adolescents has enhanced the importance of planning for their treatment [8-5].

Alavi et al. conducted a study in the urban areas of Tehran Province, Iran, on 799 children aged 6-11 year. They applied the Kiddie Schedule for Affective Disorders and Schizophrenia, Present and Lifetime version (K-SADS-PL). They concluded that 17.9% of children suffered from psychologi-

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cal disorders. The most prevalent condition was Attention-Deficit/Hyperactivity Disorder (ADHD) (8.6%); there were no significant differences between boys and girls [10].

Guilherme et al. demonstrated a meta-analysis on 41 studies conducted in 27 countries. They reported that the worldwide prevalence of mental health disorders was 13.4%. The prevalence of anxiety and depression were 6.5% and 2.6%, respectively [1]. Elberling et al. in a cohort study on 1585 children reported that the prevalence of mental health disorders was 5.7% [16]. Moreover, emotional disorders were the most prevalent ones (2.9%). The current study investigated the prevalence of mental health disorders and their comorbid disorders in children aged 6-18 years living in Qazvin Province, Iran.

2. Materials and Methods

This was a national project with a cross-sectional design implemented in 2017 on 1025 children and adolescents. The study participants aged 6-18 years and lived in the central areas of Qazvin, Iran. They were selected using cluster sampling method. For sampling, the first 170 clusters were randomly selected, including 30 central rural clusters and 140 urban clusters. The age groups were divided into the three groups of 6-9, 9-12 and 12-18 year olds. Each cluster included both genders from all three age groups. Only those who were the citizens of Qazvin Province (living there for at least one year) and aged 6-18 years were included in the study. Those who had severe physical illnesses were excluded from the study. The study participants and their parents were surveyed through a structured interview by trained clinical psychology experts, using the Persian version of K-SADS-PL. Informed consent forms were obtained after explaining the project to the study participants and their parents.

3. Results

The Mean \pm SD age of study participants was 11.8 \pm 3.83 years. The Odds Ratio (OR) for mental health disorders with a 95% CI was 0.72 for girls ($P<0.01$). The prevalence of mental health disorders was 28.19% (95% CI); this rate was 31.5% among the boys and 25% in the girls. The prevalence of mental health disorders significantly differed between the subjects in terms of gender ($P<0.02$). The overall prevalence of mental health disorders in the subjects with mothers having high school diploma was 34.7% (OR=0.88, 95% CI, $P=0.83$). Moreover, the overall prevalence of mental health disorders in those with fathers having a high school diploma was 34.7% (OR=1.43, 95% CI). The prevalence of mental health disorders was not significantly different between the subjects in terms of parents' educational level. Regarding the occupation of parents, the overall prevalence of mental health disorders in the subjects whose mothers were self-employed was 52.8% (OR=2.89, 95% CI, $P=0.006$).

Anxiety was the most prevalent mental health disorder in the samples (13.2%). Of this, specific phobia (4.7%) and separation anxiety (4.4%) were more prevalent. Among comorbid mental health disorders, psychosis disorder, conduct disorder, and alcohol abuse had the highest comorbidity rate and tic disorder had the lowest rate of comorbidity with mental health disorders. In terms of the comorbid mental health disorders in the subjects, behavioral disorders had the highest comorbidity with anxiety disorders. The comorbidity rates of mood disorders, neurodevelopmental disorders, substance use disorders, and psychosis disorders with anxiety disorders were 9.6%, 4.4%, 13.2% and 1.5%, respectively (Table 1).

Table 1. Prevalence of comorbid mental health disorders

Comorbid Disorders	Mood Disorders	Anxiety Disorders	Behavioral Disorders	Neurodevelopmental Disorders	Substance Use Disorders	Bowel Disorders	Psychosis Disorders
Mood disorders		13(59.1)	10(45.5)	3(13.6)	6(27.3)	2(9.1)	1(4.5)
Anxiety disorders	13(9.6)		30(22.2)	6(4.4)	9(6.7)	9(6.7)	2(1.5)
Behavioral disorders	10(8.3)	30(24.8)		6(5)	16(13.2)	17(14)	21(1.7)
Neurodevelopmental disorders	3(10)	6(20)	6(20)		0	6(20)	2(6.7)
Substance use disorders	6(15)	9(22.5)	16(40)	0		10(25)	0
Bowel disorders	2(2.5)	9(11.1)	17(21)	6(7.4)	10(12.3)		3(307)
Psychosis disorders	1(20)	2(40)	2(40)	2(40)	0	3(60)	

4. Conclusion

This study suggested that mental health disorders significantly vary in terms of gender. A significant difference in the prevalence of mental health disorders was observed between the studied boys and girls. This data is consistent with the results of other studies [23]. According to the present study, the overall prevalence of mental health disorders in children aged 6-18 years was 28.2%. This is in agreement with the results of a prospective cohort study conducted in Brazil using the K-SADS-PL questionnaire. The prevalence rate of mental health disorders was reported equal to 10-20% [21]. Some studies reported a relationship between the mother's job and the prevalence of mental health disorders in adolescents [34].

In our study, the occupation of mother (self-employed mothers) indicated a significant difference in relation to mental health disorders in children and adolescents. Factors such as parents' occupation and education have long been considered as probable factors affecting mental health disorders in children and adolescents. In addition, low maternal education has been reported as an important risk factor [32, 33]. In our study, no significant difference was reported in the prevalence of mental health disorders in the samples with respect to parental education. This study strongly highlights the prevalence of anxiety and behavioral disorders in children and adolescents.

We also demonstrated the increased prevalence of anxiety disorders comorbid with behavioral disorders, which is consistent with the findings of Dilsaver et al. [27]. Moreover, the present study indicated the association of behavioral disorders with anxiety and substance use disorders. Psychosis disorder, conduct disorder, and alcohol abuse had the highest comorbidity rates with mental health disorders; however, tic was often recognized as an individual disorder in the present research. Among anxiety disorders, generalized anxiety, agoraphobia, and separation anxiety had two or more comorbid disorders, which is in agreement with previous studies [2]. Consistent with other studies, conduct disorder, alcohol abuse, and anxiety disorders had the highest rate of comorbidity with hyperactivity disorder [28, 29].

Ethical Considerations

Compliance with ethical guidelines

This study was approved by the Ethics Committee of National Institute for Medical Research Development (code: IR.NIMAD.REC.1395.001).

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Authors contributions

Supervision, management, writing, research, eEditing: Nasrin Sarraf; Monitoring, project management, financing: Mohammad Reza Mohammadi, Naštaran Ahmadi, Ali Khaleghi; Analysis, research, statistical survey: Soudabe Gharibi, Navid Pouri Tahvildari; and Questioning: Hafez Atapour, Hamideh Lashgari.

Conflicts of interest

The authors declared no conflict of interest.

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چکیده

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زمینه: شناسایی مشکلات بهداشت روان در کودکان و نوجوانان نیاز به بررسی شیوع اختلالات روان‌پزشکی در این گروه سنی دارد. **هدف:** این مطالعه، با هدف بررسی شیوع اختلالات روان‌پزشکی و اختلالات همراه آن‌ها در کودکان و نوجوانان ۶ تا ۱۸ ساله ناحیه مرکزی استان قزوین انجام شد.

مواد و روش‌ها: در این مطالعه کشوری که در ۳۱ استان ایران از جمله قزوین به صورت مقطعی با نمونه‌گیری تصادفی به روش خوشه‌ای انجام شد. ۱۰۲۵ کودک و نوجوان ۶ تا ۱۸ ساله ناحیه مرکزی استان با استفاده از پرسش‌نامه برنامه اختلالات اسکیزوفرنیا و خلقی کودکان و نوجوانان در طول زندگی بررسی شدند. مطالعه از طریق مصاحبه هشت نفر از روان‌شناسان بالینی آموزش دیده انجام شد.

یافته‌ها: شیوع کل اختلالات روان‌پزشکی در کودکان و نوجوانان ۲۸/۱۹ درصد (۹۵% CI) بود که ۳۱/۵ درصد پسران و ۲۵ درصد دختران شامل می‌شدند. این نتایج تفاوت معنی‌داری بین هر دو جنس در شیوع اختلالات روان‌پزشکی را نشان می‌دهد ($P \leq 0/02$). نتایج نشان داد ضریب شانس (۹۵% CI) برای اختلالات در کل جمعیت بررسی شده دختران ۰/۷ بود. علاوه بر آن اختلالات اضطرابی بیشترین شیوع را داشتند (۱۳/۲ درصد) و در این گروه هراس خاص با (۴/۷ درصد) شایع‌ترین اختلال بود. نتایج نشان داد همراهی اختلالات اضطرابی با اختلالات رفتاری (۲۲/۲ درصد) بیشتر از سایرین است. همچنین شغل آزاد مادر در ارتباط با این اختلالات تفاوت معناداری داشت. ($P \leq 0/006$)

نتیجه‌گیری: شیوع اختلالات روان‌پزشکی در استان قزوین بین پسران بیشتر از دختران است. در این مطالعه اختلالات اضطرابی شایع‌ترین اختلال کودکان و نوجوانان بودند.

کلیدواژه‌ها:

شیوع، کودکان، نوجوانان، اختلالات روان‌پزشکی، اختلال همراه

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